Mid - Florida Atari Computer Club Bulletin

September, 1995 Vol. 12, No. 9

This is the monthly bulletin of the Mid-Florida Atari Computer Club. In it are articles written or submitted by members who feel they are of interest to all users of Atari computers.

You may wish to join a computer club to share the beneficial aspects of having others around you who have similar machines, like interests, and a desire to share what they know with others. A users group can help you understand things about your computer that they have already discovered.

Our membership, at $12.00 per year, entitles you to the newsletter, access to the disk libraries, and club meetings where all the fun and education happen on a monthly basis.

We meet in the Orlando Library building downtown Orlando, 101 E Central Blvd. At 1:30PM on the second Sunday of each month. Feel free to join us there next month to learn more about the wonderful world of computers, and Atari computers in particular.

For Newsletter Exchange

M.F.A.C.C.
C/O Bob Smith
3729 Yosemite Dr.
Orlando, FL 32818

M.F.A.C.C. Affiliated BBS Listing:

Top Gun	381-5403
Inner Core	294-5183
Lear-Sparks Midi	786-0239

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Mid-Florida Atari Computer Club

MID-FLORIDA ATARI COMPUTER CLUB

From the President

" From the Backyard of the WhiteHouse"

School has started again (did it ever quit this year?) with continuous sessions, and breaks that are too hort for the family to go anywhere, and all your kids on different schedules. I know my sisters and my son are going nuts trying to keep track of who's with the sitter, and how long can we go away for, and will his vacation match with her vacation match with our vacation?

All this has been further complicated this summer by Tropical Hurricanes, storms, waves and fronts from A to K, and no end in sight. In order to keep you up to date on allof the storms from now on, so you can be meteorologically correct when you tell the grandkids about the storm that ate your garage, your Member Information Service department has put together a doozey of a disk for you this month. On the 8-bit disk you will find Hurricane Tracker, and on the ST disk Storm Tracker and Home Inventory and a shopping list to remind you of the things you would probably forget at the last minute.

While you are enjoying the meeting, reading my message in the newsletter, think of me... stuck up here in the hills of North Carolina, sitting on the porch of the cabin, under the cool trees, listening to the birds, drinking a cool, refreshing drink while the singers and pickers and strummers get ready for another evening of folk music. What a shame I can't be there with you! And oh, yeah! Our treasurer has the checkbook, and he's there in the front row, right?

You do know I wish we were all here together, don't you? And I have this piece of land right down by the crick I'd love to sell you. Watch out for each other while I'm gone, will you? I'm thinking about you all.

(Insert first and middle names of fourth President here) Baker

(Is This Really Bill Baker?)

(Editor's Note:
This Space For Rent!! Or If You Contribute An Article, You GET IT FREE!!!
The President has taken a vacation and will return sometime WHAT A DEAL!!!

Minutes Of The M.F.A.C.C. General Meeting

M.F.A.C.C. -Meeting Minutes - August 13th, 1995

The meeting got off to a rousing start at 3:08pm EST. Seven members were in attendance and one civilian.

The first topic was a continuation of the discussion about purchasing a color monitor for use with the club ST system. After a confusing discussion of Lynx game machines, it was made clear that two different purchasing options existed...

1. Purchase an SC1224 monitor from John Morrison for $85.00.
2. Purchase the same monitor from Bob Smith for $50.00 and throw in a club Lynx system as well.

A lengthy and humorous discussion of warranties ensued, after which the decision was made to purchase the monitor from Bob Smith. A former member, Jennings Ford, then made the membership aware of Atari equipment he has for sale. If you're interested in 8bit or ST equipment and didn't get his list, contact David Steinberg the current keeper of such things.

There was discussion about polling the members with regard to club meeting times and such. The elusive phone committee was discussed (who are those guys anyway). It seems that the officers will be taking responsibility for timely communication with members about upcoming events. The previous discussion led into a chat about the need for shorter business meetings and longer demos (which in turn led to a longer business meeting... go figure). This in turn prompted howls of outrage about the missing ST demo and recommendations about some redundancy in the demonstration schedule. The good news is that Bob Smith agreed to demo a graphics program for the ST. The bad news was that it was for the ST... Just kidding. The business meeting closed out with a nasty squabble about the demonstration of Atari 2600 games ported to the IBM platform. An eventful and thrilling time was had by all. Welcome again to the Whidden family, who have again joined the ranks of the Atari Illiterati...

Some phone numbers you will need to communicate with our club:

President
Bill Baker

Vice President
Jeff Potter

Treasurer
Dave Steinberg

Secretary
Robert Raymond

ST Librarian
Bob Smith

8-Bit Librarian
Jeff Potter

Membership Services
Bob Smith

Publicity

This newsletter is produced on an Atari Mega STE-4, using Pagestream 2.2 and printed on a Hewlett Packard Deskjet 500

Treasurer's Report
JULY, 1995

Opening balance of	634.82
Deposit	00.00
Debit	62.80
Service Charge	10.00
Closing balance	$562.02
Cash on hand:	46.00

The new photo of :
Dave Steinberg

Birthdays for August

No one was born in September

All welcomed as new members.

NO NEW MEMBERS!!!
THIS IS SO SAD!!!!

HAPPY
BACK TO SCHOOL
DAY!!!!!!

COMING EVENTS

Sept. 1: Special ST Demo
2: Bill Baker will sing MAMI
3: Excellent 8 Bit Demo
4: RENEWALS ACCEPTED
5:The Secretary May be at the meeting.
6:Other events.

FOR SALE!

****

Complete Lionel Train Collection, includes many many very rare cars, some at least 50+years old. I excellent condition. 027 guage, includes over 49 plus 3 locomotives, 3 transformers, including two heavy duty and much more, too numerous to mer here.
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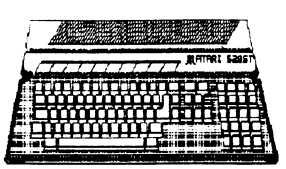
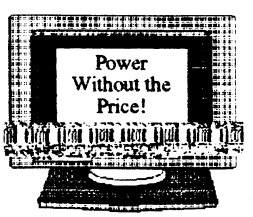


The Falcon has LANDED!!!



Judge OKs Microsoft Settlement -/-

A federal judge this morning approved an antitrust settlement reached more than a year ago between Microsoft Corp. and the U.S. Justice Department changing the way the software giant sells its key
product. Reporting from Washington, The Associated Press says that during a hearing that lasted just 17 minutes, U.S. District Judge Thomas Penfield Jackson asked attorneys for Microsoft and the government whether there were any last minute changes. Microsoft asked that the agreement which extends for 6 1/2 years and covers the way it sells, or licenses, its main product topersonal computer makers be made effective retroactive to Dec. 15, 1994. The government opposed that idea and Jackson sided with the Justice Department, saying it would take effect as soon as he approved it. Afew moments later, he declared, "The decree has been entered."
Assistant U.S. Attorney General Anne Bingaman declined to comment afterward. William Neukom, chief counsel for Microsoft, said the company was pleased by the judge's decision. The order ends an unusually long judicial review of an antitrust case. The first judge to look over the agreement rejected it but was overturned on appeal.
Meanwhile, a separate investigation into Microsoft's new Windows 95 operating system and its entry into the online services industry is continuing. Justice officials left open the possibility that evidence from the current probe could be presented to the judge, according to the Dow Jones news service.

/- Microsoft Unveils Web Browser -/-

Microsoft Corp. has unveiled browser software for the Internet's World Wide Web, available for free downloading. The browser is specially designed to take advantage of Microsoft's Windows 95 operating system, which goes on sale next week. Vice President Brad Silverberg of Microsoft's personal systems division told United Press International at the company's Redmond, Washington, headquarters, "Our goal is to provide Windows 95 customers with a solution that combines superior integration with Windows 95, great ease of use and high performance. UPI adds, "The announcement launches Microsoft into the red-hot battle to become publisher of the dominant browser. ... Microsoft said computer manufacturers are pre-installing Explorer on all new machines running Windows95. The wire service adds the Internet Explorer takes advantage of Windows 95, a faster 32-bit system, while earlier browsers were configured for earlier versions of Windows, 16-bit systems. Also built in is the RealTime Audio software for listening to sounds or music on the Net.The Microsoft's browser will be available free at the firm's File Transfer Protocol site at ftp.microsoft.com at the Web address http://www.microsoft.com. CompuServe members now have access to the Internet's World Wide Web through the NetLauncher software. GO NETLAUNCHER for details. Or to reach the FTP site from CompuServe, GO INTERNET.

/- China Backs IBM OS/2 Warp -/-

In a blow to Microsoft Corp., China's electronics ministry has endorsed IBM Corp's OS/2 Warp operating system over the rival Windows platform. The official Xinhua news agency notes that the endorsement by China's Ministry of Electronics Industry was part of a "statement of direction" signed by Chinese and IBM officials. According to Xinhua, "The ministry is to endorse OS/2 Warp as a preferred product and recommend it to Chinese users, so as to provide them with alternatives among various software platforms. The endorsement comes less than a week before the worldwide launch of Windows 95. A Chinese version of Windows 95 is scheduled for launch before the end of 1995.

/- PC Mag Disputes Win95 Claims -/-

In its Sept. 26 issue, PC Magazine reports that its test results tell a slightly different tale for Windows 95 than Microsoft's performance claims. The publication says its testing reveals that Windows 95 performs at par with Windows 3.11 and Windows 3.1, running existing Windows applications on machines with sufficient memory. However, the new operating system is slower on some older configurations and in running DOS applications. Still, notes the magazine, Windows 95 strikes a good balance between stability and compatibility with existing applications. PC Magazine recommends that individual users who are buying new systems, or who have systems with at least 8MB of memory should upgrade to Windows 95, because they will see similar performance, better stability, very good compatibility and the ability to run the many new applications being written for the operating system. However, PC Magazine recommends that users who have systems with 4 mega bite of RAM stick with Windows 3.1 unless they are willing to purchase additional memory.

/- French Student Cracks Netscape -/-

The security code of a foreign version of the popular Netscape Navigator software reportedly has been cracked by a French computerist. Business writer Catalina Ortiz of The Associated Press comments, "While the breach illustrates that such encryption

Continued on following page

codes aren't foolproof, it doesn't mean open season on credit card numbers and other sensitive financial data used on the global computer network. For one thing, Ortiz says, "the cracked code was much less sophisticated than that used on the domestic version of Netscape Navigator." Also, "even the hacker admitted it took 122 computers and eight days to crack enough code to read just one single message, a process that would have to be repeated for any additional message.Still, Netscape and security experts said the breach signals the need for the U.S. government to eliminate rules that prohibit export of software with the stronger security features. Netscape Vice President Mike Homer told AP, "Many companies have been lobbying for that. I think it's likely it will change. I'm not sure how long it will take. AP notes current export rules are designed to prevent foreign terrorists from stealing sophisticated security codes, potentially allowing them to communicate without intelligence agencies listening in. The wire service says Damien Doligez, a student at the French Institute for Research in Computer Science, announced on the Internet earlier this week that he cracked the security code in response to a challenge from a member of Cypherpunks, an Internet discussion group devoted to encryption and privacy issues. The task required 120 workstations and two supercomputers, he said, adding he did not break the master code but read only one encrypted message. In an update yesterday, Doligez said he learned that someone else broke the code two hours before he did. "The version of Navigator available to Doligez," says Ortiz, "uses an encryption code with a socalled 40-bit key, the most sophisticated technology that the United States allows companies to export. In the United States, Netscape uses a 128-bit security key. At Netscape, Homer said breaking the security of that version required "10 to the 26th power" more computing power than Doligez used, adding, "That's 10 with 26 zeros behind it. There isn't an English word for it. The closest I could get when I tried to figure it out was more than 100 trillion times greater. ... That only gets you to 14 of those 26 zeros." In his Internet announcement, Doligez said the technical implications of his feat were "almost zero." He added that knowledgeable people already knew it was possible to read messages protected by the 40-bit code and that the domestic version of Netscape Navigator is "practically impenetrable."

/- AOL Relocates Employees -/-

The Washington Post reports that online service provider America Online Inc. of Vienna, Virginia, has asked 250 local employees to relocate to Jacksonville, Florida, and accept a pay cut.The newspaper states that the relocation affects most of AOL's Vienna-based customer service staff, representing one of every six AOL employees in Northern Virginia. It is the first downsizing at the 10-year-old company's headquarters. "It's more advantageous for us to have customer support centers in other parts of the country," where costs of living and business expenses are lower than in the D.C. area, AOL spokeswoman Pam McGraw told the Post. A man who identified himself as an AOL staffer contacted newspaper yesterday to complain about the relocation, saying that employees who made the move would face a pay cut after the first year of about one-third, from $11 an hour to $7 an hour. Employees were given only a few weeks to make the decision, he added. McGraw stated that AOL would offer affected employees "a very generous relocation package."

/US Robotics Buys ISDN Systems/-

Through a stock transaction worth about $40 million, modem maker US Robotics Corp. has acquired ISDN Systems Corp., a Vienna, Virginia, developer of board-level Integrated Services Digital Network and Frame Relay-based client and server products. In a statement from its Skokie, Illinois, headquarters, Robotics says the acquisition enables it "to take advantage of applications that require ISDN only connectivity, and positions the company to maximize opportunities in the growing worldwide marketplace for ISDN and Frame Relay access products. The statement says all outstanding shares of privately- held ISC were converted into US Robotics shares. ISC becomes a wholly-owned subsidiary operated under US Robotics' Corporate/Systems Division. ISC President/CEO Asghar Mostafa will become a senior manager in that business unit.

/Compaq Unveils New Notebooks/-

Compaq Computer Corp. has introduced the LTE 5000, a newhigh-end notebook computer line, its first models co- developed with Inventec Electronics Corp. of Taiwan. The 75MHz and 90MHz Pentium- based system feature a modular design that allows users to access an integrated CD-ROM drive, up to 2.7GB of hard disk storage, two batteries with up to eight hours of operating time or a floppy disk drive. The notebooks also provide PCI local-bus graphics and a maximum RAM capacity of 72MB. An optional MultiBay Expansion Base shares interchangeable devices with the notebook. The unit also provides storage expansion to 5.4 GB, two additional PCMCIA slots, integrated Ethernet support, MPEG and TV Video adapters and stereo speakers. "The new LTE 5000 is the ultimate business tool for mobile professionals who require the highest performance, most flexible notebook for advanced or specialized applications," says Hugh Barnes, senior vice president and general manager of Compaq's portable PC division. "Our customers have described their notebook wish list, including the ability to easily customize their portables to meet their individual needs, and we've designed the LTE 5000 to exceed their expectations. Compaq says it will announce the systems' prices andbegin shipments in September.

Hs Merger Alternatives -/-

Hayes Microcomputer Products Inc is looking at alternatives to a merger with Boca Research Inc., officials with the Georgia modem maker told a bankruptcy court yesterday. The U.S. Bankruptcy Court in Atlanta approved a letter of intent for the two modem

DEALER VIEWPOINT

Historical Perspectives

by Sheldon Winick

Well, I had said I was going to retire this column several months ago when I took over the Editor position of GEnieLamp/Atari, but there has been so much happening in the computer marketplace recently, I felt inspired to write (at least) one more column. August 24th was the big day for high profile product releases. Microsoft finally rolled out Windows 95 for public consumption, and Atari finally rolled out their CD ROM accessory for the 64-bit Jaguar Multimedia Entertainment System. Both products have received a great deal of pre-production publicity and hype, and both were released considerably later than originally announced by their respective companies. That's about where the comparison stops, however. Just about everyone living on this planet has heard about Windows 95; it's safe to assume that the large majority of this planet's population probably doesn't even know that Atari is still even in business.

Looking back at the early days of personal computing in the late 70's, Atari was there at the forefront. Pong can probably be credited as one of the earliest successful consumer oriented computer products, followed soon by Atari's extremely successful 2600 game machine. That early computer power rapidly evolved into Atari's first home computer, the Atari 400, followed almost immediately by its big brother, the Atari 800. These systems were truly revolutionary in that they came equipped with onboard color graphics and stereo sound; this at a time when the rest of the personal computer industry was struggling along without either. The closest thing to sound in most other systems was limited to a few beeps and squeeks, which as it turned out, became the 'industry standard' for over a decade!

Of the other early home systems, the others which offered color and sound were Radio Shacks Color Computer and the Commodore 64. The early business systems were led by Radio Shack's TRS80 systems and the early Apple computers, along with a host of CP/M-based machines by various manufacturers. For those of you who either don't remember back that far or are too young to remember, CP/M was the first disk-based operating system that was openly marketed with the concept of becoming an 'industry standard' among various manufacturers. CP/M, which stands for Control Program for Microcomputers, was developed by Digital Research, and by 1981, had become adopted by the large majority of business oriented microcomputer manufacturers. Even Radio Shacks TRS80 systems were based on a variation of CP/M. For a while, it appeared that Digital Research had a lock on making CP/Mthe true industry standard, especially when Xerox became the first truly major manufacturer to enter the microcomputer market when they rolled out their Xerox 820 in 1981, along with CP/M as its operating system.

IBM's Personal Computer, the IBM PC, still hadn't been completed, and at hat time, IBM was still involved in negotiations with Digital Research to use CP/M as well. For whatever reason, those negotiations broke down, and IBM decided to develop their own operating system. That's where a very young programmer named Bill Gates came into the picture. IBM hired him to develop an operating system similar to CP/M, and agreed to allow him to retain the rights to the system and market it to other manufacturers in an attempt to make IT the industry standard. As it turned out, this was the beginning of the 'open architecture' approach to personal computing that enabled the industry to grow to where it is today. Mr. Gates' MS-DOS (Microsoft Disk Operating System) was the result of that effort. As it turned out, it was almost identical to CP/M in its user interface and command structure. Of course, by the time that it was finished, Digital Research was rolling out their next generation operating system, CP/M-86, which was far superior to both CP/M and MS-DOS. But the tide had already turned, and the MS-DOS bandwagon was already rolling, leaving a host of far superior hardware and software in its wake. The marketing prowess of IBM totally overran Xerox's feeble attempts, and the open architecture approach that IBM took attracted much of the rest of the industry to follow. Radio Shack soon abandoned their own platform and became a clone manufacturer, as did most everyone else in the industry. Only Commodore, Apple and Atari managed to survive as major independent closed architecture personal computer systems. While the IBM/MS-DOS bandwagon was attracting huge numbers of new computer users to the user-unfriendly, slow and clunky command-line systems through excellent marketing programs, Commodore, Apple and Atari continued to develop new and exciting graphic-based systems.

While Bill Gates was busy making MS-DOS continually bigger and more complicated, Xerox was developing one of the first true graphics-based systems, their Xerox Star. Digital Research was developing their GEM operating system (Graphic Environment Manager), upon which the Apple Macintosh and Atari ST were based. But even before those systems made their debut, Apple had already rolled out their Apple III, which offered greater potential computing power than most everything else then in the marketplace. Unfortunately, Apple was unable to attract much development for that system, and without software, it was obviously of no value to anyone. The Apple Lisa was rolled out with great fanfare; even MORE computing power that definitely leapfrogged the industry, but it too was doomed to failure, primarily because it was priced way out of the realm of most microcomputer buyers' budgets. Apple went back to the drawing board, took the Lisa's concepts and stripped out the color and other bells and whistles, and out came the Macintosh. Instant success! Here was a user-friendly personal computer, easy to learn and fun to use.

About the same time, Commodore was rolling out their Amiga, and Atari their ST. These were also user friendly systems, the Atari much more so than the

(Continued on next Page)

Amiga, but the main difference was that both Atari and Commodore had managed to leave in all the bells and whistles, including excellent color graphics and sound, and still bring their systems to market at an affordable price. The Amiga's color graphics proved to be an excellent platform for color video graphics applications, and as it turned out, the Amiga dominated that niche market through most of the late 80's and early 90's. The Atari ST, with its built-in MIDI interface, quickly became the 'industry standard' for musical applications. That niche market was one of Atari's strongholds for much of that same period. The Atari ST also became a favorite throughout Europe, where its 'Power Without the Price' was fully appreciated. For whatever reason, Atari chose to concentrate nearly all its marketing efforts overseas, and its American market was primarily limited to a small core of dedicated users who knew about Atari and were willing to search out a dealer who supported the platform. Throughout Europe, the Atari systems also became a major contender in the desktop publishing arena. In America, the Macintosh became the dominant player in that market, and held that position for many years. One thing that all these graphic-based platforms had in common was that their architecture was based around Motorola's 68000-series processors. hile the IBM and MS-DOS based systems were built around the less powerful Intel processors that had no intrinsic graphical ability, the Motorola processors offered full graphical capabilities, without the need to add all kinds of supplemental graphical upgrade boards to get that capability. Motorola's processors also were not handicapped with the rediculous memory limitations that were inherent on the Intel platform. Those differences were readily apparent when comparing the size difference between the big case IBM/compatible systems (space for all those necessary 'upgrades' just to make them work) and the compact desktop cases of the Macintosh, Amiga and Atari ST systems. But the mass appeal of the clone market quickly made it the dominant platform and the industry standard. The large installed base of IBM/clone users attracted a continually larger share of development as well, both hardware and software. Unfortunately, the clunky design of the hardware and operating system software made those systems slow and difficult to use for most users. Microsoft responded with frequent 'upgrades' to its MS/DOS operating systems and finally rolled out 'Windows' with much fanfare, claiming to have invented a better way to do personal computing -- with a mouse and its pseudo-graphical interface. In reality, it was merely a graphical user interface loaded on top of DOS, which caused even more slowdown in the processing speed. The early releases of Windows were clearly feeble attempts to copy the superior GEM systems that had been used by Apple Macintosh and the Atari ST since 1985. In any event, the larger, more complex operating systems from Microsoft continually demanded faster and more powerful hardware in order for them to operate acceptably, and new technology hardware was continually the solution for overcoming deficiencies in the operating system software. Now we have Windows 95, a complete replacement for DOS and Windows. While previous Microsoft operating system software was limited to 16-bit architecture, Windows 95 finally offers a true 32 bit operating system to match the 32-bit hardware that has been standard for years. Of course, a 32-bit operating system is nothing new to Atari owners, who have been using one for years. That simple fact is one of the primary reasons why software has always run so much faster on the Atari platform, despite the fact that the specs on the processor speed always sounded slow compared to the higher numbers on the DOS clones In addition to its 32-bit capability, Windows 95 offers a much cleaner, more user friendly graphical interface (something we've always had on the Atari ST systems), the ability to install program icons directly on the desktop screen (something Atari has offered since '91), and true plug and play installation of peripherals (something the Atari ST line has always had). Of course, Windows 95 does go beyond those basic 'catch-up' features. With the large majority of the world's computer users apparantly committed to the Intel/Microsoft platform, it is nice to see that Microsft is finally heading in the same user-friendly directions that Atari and Apple introduced a decade earlier.The Intel/Microsoft bandwagon has clearly become the current industry standard. Commodore called it quits last year, and Atari chose to withdraw from the personal computer market to concentrate solely on home game systems shortly thereafter. Even Apple Macintosh sales are apparantly slipping as the Intel/Microsoft bandwagon is continually gaining even more momentum with the rollout of Windows 95 to take better advantage of the Intel Pentium processor. In an attempt to counter this monopolistic bandwagon, Apple, IBM and Motorola formed an alliance a few years ago, to develop a next generation system based around Motorola's Power PC processor. Apple rolled out its first generation Power PC systems last year, but IBM's Power PC systems have been held up by delays in completion of their new Power PC OS/2 operating system. Industry gurus seem to agree that Motorola's Power PC is clearly superior to Intel's Pentium, but even Motorola's 68000 series chips held a technological advantage over their Intel contemporaries. With Microsoft's rollout of Windows 95 before IBM could complete it's Power PC OS/2 system, it appears that the Microsoft/Intel steamroller will continue to gain even more momentum. Meanwhile, Atari's move to the home entertainment system brought their technological prowess to a market that was dominated by technologically arthritic systems. Christmas '93 saw Atari's rollout of the first 64-bit home entertainment system, the Atari Jaguar. Atari had technologically leapfrogged the home entertainment industry, much as they had the personal computer industry so many years earlier. But once again, they have allowed that technological advantage to slip away without taking full advantage of their potential. Now, almost 2 years later, the Jaguar still only has around 30 games released so far, and the highly touted CD-ROM accessory which was promised as a 'soon to be released' item when the Jag was released in 1993, is just now finally making its way to the marketplace. Other players are also now coming into the high end home entertainment marketplace, and Atari will no longer have that market all to themselves. How well Atari can cope with the competition from larger, better funded manufacturers

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who are also attracting better interest from the press, developers and dealers, has yet to be seen. However, Atari's track record in such instances has not been good. One point cannot be denied, however, and that is the fact that Atari has always provided its customer base with excellently designed hardware that clearly has the potential to outperform its contemporary competition. The Jaguar is no exception, and the just released Jaguar CD-ROM accessory will open up even more possibilities for future excellence.

(Editor's note: This column appears on an ongoing basis. The newsletter would appreciate any comments that you might havc and will publish any rebuttle article. Our thanks to Sheldon Winnick.)

HUMOR IN THE COURT
(Or Beep Beep)

Legal Brief
"""""""""""(Author Unknown)

In The United States District Court
Southwestern District
Tempe, Arizona

Case No. B19293
Judge Joan Kujava, Presiding

Wile E. Coyote, Plaintiff
vs.
Acme Company, Defendant

Opening statement of Mr. Harold Schoff, attorney for Mr. Coyote:

My client, Mr. Wile E. Coyote, a resident of Arizona and contiguous states, does hearby bring suit for damages against the Acme Company, manufacturer and retail distributor of assorted merchandise, incorporated in Delaware and doing business in every state, district, and territory. Mr. Coyote seeks compensation for personal injuries, loss of business income, and mental suffering caused as a direct result of the actions and/or gross negligence of said company, under Title 15 of the United States Code Chapter 47, section 2072, subsection (a), relating to product liability.

Mr. Coyote states that on eighty-five separate occasions, he has purchased of the Acme Company (hereinafter, "Defendant"), through that company's mail order department, certain products which did cause him bodily injury due to defects in manufacture or improper cautionary labelling. Sales slips made out to Mr. Coyote as proof of purchase are at present in the possession of the Court, marked Exhibit A. Such injuries sustained by Mr. Coyote have temporarily restricted his ability to make a living in the profession of predator. Mr. Coyote is self employed and thus not eligible for Workmen's Compensation.

Mr. Coyote states that on December 13th, he received of Defendant via parcel post one Acme Rocket Sled. The intention of Mr. Coyote was to use the Rocket sled to aid him in pursuit of his prey. Upon receipt of the Rocket Sled, Mr. Coyote removed it from its wooden shipping crate and sighting his prey in the distance, activated the ignition. As Mr. Coyote gripped the handlebars, the Rocket Sled accelerated with such sudden and precipitate force as to stretch Mr. Coyote's forelimbs to a length of fifteen feet. Subsequently, the rest of Mr. Coyote's body shot forward with a violent jolt, causing severe strain to his back and neck and placing him unexpectedly astride the Rocket Sled. Disappearing over the horizon at such speed as to leave a diminishing jet trail along its path, the Rocket Sled soon brought Mr. Coyote abreast of his prey. At that moment, the animal he was pursuing veered sharply to the right. Mr. Coyote vigorously attempted to follow this maneuver but was unable to, due to poor design and engineering on the Rocket Sled and a faulty or nonexistent steering system. Shortly thereafter, the unchecked progress of the Rocket Sled led it and Mr. Coyote into collision with the side of a mesa.

Paragraph One of the Report of Attending Physician (Exhibit B), prepared by Dr. Ernst Grosscup, M.D., D.O., details the multiple fractures, contusions, and tissue damage suffered by Mr. Coyote as a result of this collision. Repair of the injuries required a full bandage around the head (excluding the ears), a neck brace, and full or partial casts on all four legs. Hampered by these injuries, Mr. Coyote was nevertheless obliged to support himself. With this in mind, he purchased of Defendant as an aid to obility one pair of Acme Rocket Skates. When he attempted to use this product, however, he became involved in an accident remarkably similar to that which occurred with the Rocket Sled. Again, Defendant sold over the counter, without caveat, a product which attached powerful jet engines (in this case, two) to inadequate vehicles, with little or no provision for passenger safety.

Encumbered by his heavy casts, Mr. Coyote lost control of the Rocket Skates soon after strapping them on, and collided with a roadside billboard so violently as to leave a hole in the shape of his full silhouette. Mr. Coyote states that on occasions too numerous to list in this document he has suffered mishaps with explosives purchased of Defendant: the Acme "Little Giant" Firecracker, the Acme Self-Guided Aerial Bomb, etc. (For a full listing, see

(Continued on Page 12---->)

the Acme Mail Order Explosives Catalog and attached deposition, entered in evidence as Exhibit C.) Indeed, it is safe to say that not once has an explosive purchased of Defendant by Mr. Coyote performed in an expected manner. To cite just one example: At the expense of much time and personal effort, Mr. Coyote constructed around the outer rim of a butte a wooden trough beginning at the top of the butte and spiralling downward around it to some few feet above a black X painted on the desert floor. The trough was designed in such a way that a spherical explosive of the type sold by Defendant would roll easily and swiftly down to the point of detonation indicated by the X. Mr. Coyote placed a generous pile of birdseed directly on the X, and then, carrying the spherical Acme Bomb (Catalog #78) climbed to the top of the butte. Mr. Coyote's prey, seeing the birdseed, approached, and Mr. Coyote proceeded to light the fuse. In an instant, the fuse burned down to the stem, causing the bomb to detonate.

In addition to reducing all Mr. Coyote's careful preparations to naught, the premature detonation of Defendant's product resulted in the following disfigurements to Mr. Coyote:

1. Severe singeing of the hair on the head, neck, and muzzle.

2. Sooty discoloration.

3. Fracture of the left ear at the stem, causing the ear to dangle in the aftershock with a creaking noise.

4. Full or partial combustion of whiskers, producing kinking, frazzling, and ashy disintegration.

5. Radical widening of the eyes, due to brow and lid charring.

We come now to the Acme Spring-Powered Shoes. The remains of a pair of hese purchased by Mr. Coyote on June 23rd are Plaintiff's Exhibit D. Selected fragments have been shipped to the metallurgical laboratories of the University of California at Santa Barbara for analysis, but to date, no explanation has been found for this product's sudden and extreme malfunction.

As advertised by Defendant, this product is simplicity itself: two wood-and- metal sandals, each attached to milled-steel springs of high tensile strength and compressed in a tightly coiled position by a cocking device with a lanyard release. Mr. Coyote believed that this product would enable him to pounce upon his prey in the initial moments of the chase, when swift reflexes are at a premium.

To increase the shoes' thrusting power still further, Mr. Coyote affixed them by their bottoms to the side of a large boulder. Adjacent to the boulder was a path which Mr. Coyote's prey was known to frequent. Mr. Coyote put his hind feet in the wood-and-metal sandals and crouched in readiness, his right forepaw holding firmly to the lanyard release. Within a short time, Mr. Coyote's prey did indeed appear on the path coming toward him. Unsuspecting, the prey stopped near Mr. Coyote, well within range of the springs at full extension. Mr. Coyote gauged the distance with care and proceeded to pull the lanyard release. At this point, Defendant's product should have thrust Mr. Coyote forward and away from the boulder. Instead, for reasons yet unknown, the Acme Spring-Powered Shoes thrust the boulder away from Mr. Coyote. As the intended prey looked on unharmed, Mr. Coyote hung suspended in the air. Then the twin springs recoiled, bringing Mr. Coyote to a violent feet-first collision with the boulder, the full weight of his head and forequarters falling upon his lower extremities. The force of this impact then caused the springs to rebound, whereupon Mr. Coyote was thrust skyward. A second recoil and collision followed. The boulder, meanwhile, which was roughly ovoid in shape, had begun to bounce down a hillside, the coiling and recoiling of the springs adding to its velocity. At each bounce, Mr. Coyote came into contact with the boulder, or the boulder came into contact with Mr. Coyote, or both came into contact with the ground. As the grade was a long one, this process continued for some time. The sequence of collisions resulted in systemic physical damage to Mr. Coyote, viz, flattening of the cranium, sideways displacement of the tongue, reduction of length of legs and upper body, and compression of vertebrae from base of tail to head. Repetition of blows along a vertical axis produced a series of regular horizontal folds in Mr. Coyote's body tissues, a rare and painful condition which caused Mr. Coyote to expand upward and contract downward alternately as he

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walked, and to emit an offkey, accordion-like wheezing with every step. The distracting and embarrassing nature of this symptom has been a major impediment to Mr. Coyote's pursuit of a normal social life.

As the court is no doubt aware, Defendant has a virtual monopoly of manufacture and sale of goods required by Mr. Coyote's work. It is our contention that Defendant has used its market advantage to the detriment of the consumer of such specialized products as itching powder, giant kites, Burmese tiger traps, anvils, and two hundred-foot-long rubber bands. Much as he has come to mistrust Defendant's products, Mr. Coyote has no other domestic source of supply to which to turn. One can only wonder what our trading partners in Western Europe and Japan would make of such a situation, where a giant company is allowed to victimize the consumer in the most reckless and wrongful manner over and over again.

Mr. Coyote respectfully requests that the Court regard these larger economic implications and assess punitive damages in the amount of seventeen million dollars. In addition, Mr. Coyote seeks actual damages (missed meals, medical expenses, days lost from professional occupation) of one million dollars; general damages (mental suffering, injury to reputation) of twenty million dollars; and attorney's fees of seven hundred and fifty thousand dollars. By awarding Mr. Coyote the full amount, this Court will censure Defendant, its directors, officers, shareholders, successors, and assigns, in the only language they understand, and reaffirmthe right of the individual predator to equal protection under the law.

(Editor's note: This article was contributed by Bob Smith.)

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FROM THE OTHER SIDE

By Bob Smith

The following article is one that is very significant and thought provoking and rather than express my own viewpoint, I thought I would present this instead. I have a feeling I will get some varied and quick replies from some members of the Club. So here it is in it's entirety.

OPPOSING VIEWPOINTS

Third On The Block

"""""""""""""""""""""

by Lee W. Benjamin

Third On The Block- Getting by on a limited budget in the Atari World I am an Atari enthusiast. I've had an ST in one form or another for over six years now and with a house and family to look after, I haven't always been able to just go out and buy what I wanted or even what I needed. For example, there was the time I had a power supply go out in my 1040ST. I looked at the prices for a replacement power supply and just about choked. Over seventy dollars (at the time) for a dinky little, low capacity power supply. I figured I could do better. The key to this quest was to use all available resources. With a trip to a local electronics supply house and another to a used computer dealer I soon had a power supply for the ST, total cost about $30. Now, naturally this included some compromises. The power supply is from a PC XT and sits on the floor next to the table due to its size, but it works. The point? There are a lot more resources for the Atarian out there than you might think at first, sometimes you've just gotta go looking for them.

With many Atarians shifting to the PC or Mac there are opportunities to find lots of Atari hardware and software at bargain basement prices. You can choose to deal with individuals or with professionals. The key is to keep your eyes open and to learn enough to know what might be useful to you. As with all computer purchases think about what you want to do with your computer and adjust your "shopping filter" accordingly. Another consideration is that I'm not a "first on the block" person. Sure I'd like to have all the latest stuff, but I'd like to see if it

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works first and I usually can't afford the introductory price for the latest wizz-bang program or peripheral. Sometimes I'll purchase stuff that's been around and around again, thus the title of this article.

Now, I may offend some with my views of the used market; it could be viewed as vulturism on my part and could be seen as depriving retailers of business as well. That's simply not the case. The fact is that by purchasing equipment from those who are moving on we're giving these programs and peripherals new life and getting an opportunity to use some things that we probably wouldn't have purchased otherwise. In fact some retailers welcome this behavior as they often take trade-ins of older equipment that's in good shape to encourage sales of "the latest and greatest" items. This stock of good used equipment can then be re-sold at reasonable prices to those who tend to come in and browse, but blanch at the prices of the new stuff. A good example of the value of being the third on the block is my CD-ROM drive. I am the proud owner of one of the oldest, slowest CD-ROM drives around: an Atari CDAR-504. I'm the third or fourth owner of this unit. Atari introduced them in 1987, uh, well sorta. They built a few and showed them at COMDEX and tried to get some Atari Specific CD-ROM software developed by selling some units to developers at reasonable prices. Unfortunately it turned into a "chicken and the egg" problem; the software never came and Atari never released the CDAR-504 (or the later CDAR-505) for public purchase in this country. By knowing what I was interested in and watching the message bases and library files on GEnie I located one of these rare beauties. I found the "Current Notes" CD ROM on a close out sale for $10. After getting the CDAR-504 running with MetaDOS, I then had the distinct pleasure of connecting up with Roger Burrows of Anodyne Software who was, at the time, thinking of writing a replacement for MetaDOS and was looking for beta testers. Thus ExtenDOS was born. I don't claim any credit for ExtenDOS, but even Roger agrees that I was helpful in debugging the early versions and ensuring CDAR-504 compatibility. Thanks for a great product, Roger!The purchase of used and close-out equipment and software can also lead to additional sales for the "new" market. My purchase of the CDAR-504 has led to the purchase of several of the new Atari specific CD-ROMs that have appeared along with some PC CD-ROMs of clipart, text and pictures. None of these purchases of new software would have happened if I hadn't kept my eyes open for a good deal on a CD ROM drive. Similar deals can now be had with many PC owners updating to 3x and 4x (speed) CD-ROM drives, their older 2x drives can be had at bargain prices. If the CDAR-504 ever dies, I'll be looking at them myself.

Caveat Emptor. The Romans had a phrase for it, "Let the buyer beware". When purchasing used equipment or software from individuals you can usually apply the same principles that you'd use if you were purchasing from a store. Ask yourself these questions: Does the seller seem to know what they're talking about? Does the seller seem to be open and honest about what they're selling? Will they let you pay with a check? Will they ship COD or even before you send money? Who pays for shipping? What about insuring the shipment? What if you buy a piece of equipment and it doesn't work when you get it? Can you delay payment until you get it and test it out? You have to decide which of these questions are important to you and which ones you can compromise on. Naturally there are many more questions that can be answered. Use your good judgement; if the situation makes you nervous there may be a good reason and you shouldn't commit yourself to anything that you can't afford to lose outright if a major problem develops. Remember, if you treat people fairly they'll usually do the same in return. Good luck.

Now, I've talked about a few of my successes, but not a lot about how I found them. I looked and I listened. On-line there are many opportunities or finding used equipment. On GEnie you can browse through the message bases in the Atari area

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and those areas which contain Atari related items, but are outside of the Atari SIG. For example Lexicor (Nova boards and graphic software) has a topic in the Graphics RT and SoftLogic (PageSteam) has their own RT. Both have topics for used equipment and most any discussion can easily diverge to the availability of used hardware and software. Don't overlook local bulletin boards either. If you have a local board that supports the Atari, or even one that doesn't, you'll usually find a used equipment section. Remember there are many printers, modems, hard drives and monitors that can be used by the Atari computers available from the PC and Mac worlds. Keep your ears open in the Atari specific topics and learn what PC/Mac equipment can be used by the ST/TT/Falcon. An overheard casual mention of an extra monitor on-line can be turned into an opportunity with a simple e-mail message. Don't forget those local computer shows, flea markets and yard sales either. These have been a great source of joysticks and CD-ROMs for me. In addition to your own attentiveness on-line there are opportunities in the file areas of GEnie and your local bulletin board. Many people will make up a list of hardware/software that they no longer want and post a small message on GEnie or a local BBS. These lists, though sometimes cryptic and lacking good contact information, can be a treasure trove of "GEM"s for your larder. There are even companies that specialize in the used Atari market. One of the oldest and best is CeeJay Software which posts a list of used hardware and software to GEnie regularly. Carey Cates (C.CATES in GEnie mail) keeps his eyes open and purchases mounds of used Atari hardware and software and then makes it available by posting his CeeJay Software lists to GEnie. He'll even keep an eye open for that special item that you want, if it isn't listed in his current list. Just drop him a note via GEnie. Even places that don't put up lists often have used equipment to offer. Check out the ads in ST Informer Magazine and you'll often find an e-mail address. Drop them a note asking about the availability of used equipment along with an idea of the kind of things you're looking for and you might be surprised at the positive response you get and the rock bottom prices available.

About Copyrights. Most software that gets into the commercial channels are copyrighted. Many contain copyright notices that spell out the rights of the seller and the first buyer. Most of these notices don't address the rights of the second or third purchaser. In general as long as you make sure you're getting ORIGINAL diskettes and an ORIGINAL manual, you're safe. Some software companies even encourage you to contact them when you buy used software and will allow you to transfer ownership to get you the right to buy updates if available. If in doubt, write to the company. Check the manual carefully and you might even be able to do it all via e-mail.

I hope that this article helps you to expand the variety of things that you do with your computer by showing you how to find the opportunities available in the used hardware and software market. You can investigate desktop publishing, graphics, sound and video capture, CD-ROMs, programming and many other applications that you were interested in, but just don't have the cash to spend on the latest and greatest hardware and software. It's almost a "try before you buy" situation in that you may be able to spend a little to find out if you're _REALLY_ interested in an area before you go out and spend big bucks on something and then have your interest wane. Just remember the following:

- o Keep your eyes open, and listen to what's being available.
- o Have fun! You don't have to buy anything you don't really want.
- o With a little caution you can experience "safe shopping".
- o Look everywhere, some bargains show up in unlikely places.

Happy Atari Computing!
Take Care,
Lee B.
Editor's Note: Lee is the Newsletter Editor of the Middle Georgia Atari User's Group (MGAUG)

APE

(Or a Monkey Of A Program)

By Steven J Tucker

Subject: APE 1.04 is here! - comp.sys.atari.8bit #25894

After much much more work than I ever thought I would put into this project, APE (The Atari Peripheral Emulator) version 1.04 is ready for public release!

What is APE? Here is some information from the users manual:

The Atari Perihperal Emulator (APE) is a advanced serial application that emulates an entire subsystem of atari 8 bit peripherals using your existing or purchased SIO2PC compatible serial conversion device.

What SIO hardware does APE emulate?

The following SIO hardware and command systems are supported:

* Full cooperation with REAL sio devices, such as disk drives.
* SpartaDOS ULTRASPEED I/O in any drive/density
* Up to 8 Diskette Drives
*Single, Double and 1050 Enhanced Density for any drive
* Disk images of upto 16 megabytes in size!
* PC MIRROR drive gives access to files on your PC hard drive with any Atari Dos!
* Emulation of the Atari 850 interface, allowing you to use your PC modem and printer from any atari application that can use the 850 interface. 100% 850 stage 1 compliant.
*Hardware flow control for the PC modem using the R: device.
* Basic SIO Commands Supported
  Read Sector
  Write Sector
  Put Sector
  Disk Drive Status
  Controller Format Diskette
  Controller Format Enhanced Density Diskette
  Read Percom Extended drive configuration block
  Force Ultraspeed
  Ultraspeed I/O Sector Skew Format Diskette
  Print to 850 interface

* XF551 High Speed Read Sector
* XF551 High Speed Put Sector
* XF551 High Speed Write Sector
* Happy Warp Speed Read Sector
* Happy Warp Speed Put Sector
* Happy Warp Speed Write Sector
* Happy 'Are You Happy?' Command
* Happy Read Status Command
* Happy Format Diskette
* Happy Init Controller
* Happy Reset Drive
* Happy Set Unhappy Mode
* Happy Set Fast Write
* Happy Force Protect
* Happy Force Write

What hardware is required to use APE?

APE talks to the SIO bus of your Atari 8 bit home computer using an SIO2PC compatible serial cable. This serial device provides the hardware required to convert the voltage levels present on the Atari SIO bus to levels compatible with the PC serial port This device hooks directly to the SIO port of your atari computer, and to the serial port of your PC compatible computer. No interface or other additional hardware is required!

What advanced feaures set APE apart?

* APE can utilize your PC modem as an ATARI modem, no expensive 850 interface or other hardware is required. Registered users have full serial access at upto 19.2k bps.

* APE is currently ready to handle 38.4k bps connections for use with high speed modems. This will premere in registerd version 1.05.

* Future revisions of APE will allow serial access at 57.6k bps. This is currently being tested and does work.

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* Ape can emulate Happy and XF551 warp speed (2x) I/O rates, allowing you to use dos systems such as MyDOS and Atari DOS at warp rates.

* Ape 1.05 will contain a feature never before seen on the Atari computer: SIO DISK ACCESS AT * 3x * standard SIO rates using an XL/XE software OS patch. Thats 1.5x faster than Happy, XF551 and USDOUBLER Ultraspeed!

* Loading and saving of block configurations. Load upto 8 disks instantly at the push of a button.

* PC MIRROR drive allows direct access to all the files on your PC hard drive from MyDOS, Atari DOS, etc. Copy your files with ease and let APE do the work!

* User definable keyboard macros allow automation of any APE function.

* Write protection of your ATR images.

* And much more!

How can I get APE?

APE has been uploaded to the Merit Atari Archive atatari.archive.umich.edu, and will appear in the 8bit/Ape directory.

Until then, you can contact me directly for a distribution package. I will be happy to-mail the distribution to you uuencoded, about 290k. If you do not have e-mail access send a SASE w/ a 1.44M diskette to the address below and I will return it by postal mail.

Include $2 if you cannot provide a diskette.

You may contact me the following ways:

Internet E-mail: classics@nacs.net [this is the preferred addr] dh395@cleveland.freenet.edu [emergency backup]

Telephone: 216-237-5308. Anytime you can catch me at home is pretty much ok. Just try and call before 11pm EST.

Snail Express: Steven J Tucker
9897 York Road
North Royalton, Ohio 44133
USA

Ordering the registered version of APE:

Ape is distributed as SHAREWARE, on the 'try it before you buy it's'system. See REGISTER.DOC in the shareware distribution for information on obtaining the enhanced version of APE.

Updates to the program since public beta version 8 was released:

*Bugfix for 1050 formatting and status routines
*Happy high speed reads now supported
*New syncro code added, great improvment!
*Better swapping method, you no longer have to press the existing image first, either is fine.
*Happy high speed write support added
*Some extended Happy commands now supported
*Write protection of images now effective
*Command line options added
*User now asked to mount image after creation
*850 Interface serial emulation now working at 9600 baud
*Scrapped 850 interface code and starting rewriting some public domain R: code.
*Automatic switching between command and concurrent i/o mode now working
*PC MIRROR directories are now built on the fly
*Support for 43/50 line screens installed
*850 Interface R: emulation now working at 19.2k bps
*Added General/Serial configuation screen
*Added command filters
*Added slow machine display options
*Added user definable framing value
*New streamlined core serial i/o routines. Much faster now.
*Now recognizes many more extended happy commands
*Added hardware flow control for PC modem, now works

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automatically.
*Added user definable flow control threshold
*Added the ability to load and save block configurations
*Added enhanced command line help and registered CL features
*Added Path/Macro configuration screen
*Added support for default paths and file extensions
*Added support for quick macros, and editing code
*New consolidated configuration menu, 'I' function for printer configuration now in this menu.
*Improved and incorporated my multi-type text browser into APE. Can also be called from the command line. (reg)
*Improved file selector, now has title and user can enter own path/filespec using the TAB key.

Public Thanks:

Where to begin! When I started APE it was nothing but a little program that could read single density sectors out of ATR images, and it didnt even do that well :) Without the help, encouragement and suggestions of the following people APE would not be here.

William Kendrick, Itay Chamiel, Kevin Atkinson, Tamas Bene, Rick Cortese and everyone else who's e-mail connot be found at the moment :) Also thanks to everyone in the newsgroup who helped out!

Steven J Tucker

(Editor's note: This article was contributed by Jeff Potter, Vice President and 8-Bit Librarian of the Mid-Florida Atari Computer Club. Thanks Jeff.)

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REPAIR TIPS FOR THE 8-BIT

By Jeff Golden

This text file was prepared in response to the many requests forhelp in repairing 8-bit machines. Repairing an 8-bit is a omplex subject that cannot be covered in a single sentence response to a help message. Hopefully this text file will contain more detailed information and will prove to be of assistance to those of you who are now forced to either repair-it-yourself or, <sob>, do without your favorite computer. Long live the Atari 8-bit.

To the novice who has never opened up a computer: Go for it. It is easier than you might think, and the worst that you can do is to destroy an already worthless broken computer.

DISCLAIMER: This document is provided as a service and the author can not accept any responsibility if you manage to electrocute yourself, burn down the house, destroy your computer or otherwise encounter any tragic difficulties while following these guidelines.

PARTS: The best source for replacement parts is to buy another 8-bit computer. Such a parts computer can be found at flea market sales, used computer stores, and other such sources, usually for less than $20. The preferred parts computer is one of the older 800XL models that has socketed chips. A 600XL also makes an excellent parts computer. Most of the chips are interchangeable across the different models in the 8-bit line, all of the way from the early Atari 400 through the 130XE, so your parts computer does not have to be the same model as the computer you want to repair. If the parts computer will actually run, so much the better. Running means that the chips inside are all good and it will lessen the chances of swapping one bad chip for another.

COMPARISON TEST: Set up a running computer next to the one you want to repair. To reduce the effect of any outside influences, disconnect everything from the computers except for the monitors and the power supplies. This will allow you to compare the functioning of the two computers by performing the same operations and it will enable you to determine what functions are not working on

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the broken computer. Pay particular attention to the sequence of the sounds and the screen actions that occur during the first 5 seconds after the power is turned on. Compare what you have learned about the non-functioning of the broken computer against the major chip functions that are listed in this document. This may help you to identify a prime suspect chip for a swap test.

HOT TEST: With the covers and shields removed from the motherboard, power up the broken computer and allow it to warm up for about 15 minutes. Discharge any static electricity your body may have accumulated by momentarily touching a substantial metal object. Then check the operating temperature of each chip by BRIEFLY touching the plastic backs of all chips on the motherboard. Note the emphasis on BRIEF. Some defective chips can get hot enough to burn your finger. If you run across a hot chip, it is probably defective. Some normal chips will run warmer than others. Again this is a situation where having a running computer beside the broken one is useful for comparison purposes. Replace any hot chips.

WARNING: The voltages inside the 8-bit computers are low and are relatively safe to handle, however to avoid overloading the chips, you should not touch any of the metal chip leads during the "HOT TEST". There are two exceptions to the low voltage rule. Power supply bricks and monitors do contain very high voltages.. DO NOT put your fingers inside of an operating power supply or monitor.

POWER SUPPLIES: Atari power supplies do fail. If the red power-on light fails to come on after the power is turned on, you may have a bad power supply. The author has heard of one case where the light did come on even though the power supply was defective. The output voltages for t e various bricks are printed on the cases. You can check these output voltages with a meter.

CHIP SOCKETS: If your chips are mounted in sockets consider yourself lucky. Repairing your computer is going to be a lot easier than it would be had the chips been soldered in place. Sam, I believe was the instigator of soldering the chips in the later Ataris so you now know who to blame. Sockets do have a downside. The socket connections have a tendency to corrode over time. Pry out each socketed chip, one by one, and gently press it back into place. This will clean the connections and will sometimes fix the computer.

SOLDERED CHIPS: It is possible to replace a chip that has been soldered to the motherboard, however, you must use a great deal of care. Prying on a chip that is still connected with a trace of solder may result in major damage to your computer. The printed circuits can be pulled off of the motherboard more easily than you might ever imagine.

You have two options when removing soldered chips. The first option is to remove the chip by clipping the legs with a pair of diagonal cutting pliers. You can then remove the legs one by one from the circuit board with a soldering iron and needle-nose pliers. This is the safest and easiest method, but it destroys the chip you are removing.

The second option is to desolder any chips you want to save. Forget about solder suckers. Even the fanciest models are not worth the space they take up in your toolbox. Get a roll of copper desoldering braid from Radio Shack and attack the solder from both sides of the motherboard. Use a fresh portion of the braid and your soldering iron to remove every speck of solder. Do not heat a leg for a prolonged period of time. Instead move on to another leg and come back to the first leg after it has had a chance to cool. It is very easy to damage the chip you are removing by overheating the legs. Straighten out the legs from the under side of the board and wiggle each leg back and forth to ensure that it is not stuck. After all of the legs are loose, gently lift the chip from the board. DO NOT pry on the chip. If it doesn't lift off easily, go back and do some more desoldering.

(Continued on Page 20 ----->)

In both cases install a new socket. They are very inexpensive and will save you a lot of grief in the event that your replacement chip is also defective. A socket will also eliminate any heat damage that might occur if you ignore this advice and solder in the new chip.

MAJOR CHIPS: The following is a listing of the major chips and their functions within the 8-bit computers. The Atari part numbers are included and since these numbers are stamped on each chip, the numbers should enable you to find the chip on the motherboard of your particular 8-bit model. If you compare the chip function against what you know about the computer's failure, then you may be able to select some chips that are prime candidates for swapping. i.e. If you replace a chip and the problem goes away, if you put the chip back and the problem returns, then you will have found the cause of your problem.

GTIA: CO14805. This chip is known as "George's Television Interface Adapter". It produces the video signal, the colors and the player/missile graphics. It is a prime candidate for swapping whenever the display in messed up. The GTIA is possibly the most unreliable chip in the 8-bit, and it is always a suspect. The GTIA is a large 40 pin chip usually located on the lower left.

ANTIC CO12296D CO21697. This chip drives the GTIA chip. It reaches the screen data from the screen image in memory and feeds it as needed to the GTIA chip. Antic appears to be far more reliable in service than the GTIA chip, so I would rate it as the lowest candidate for swapping when the screen is messed up. ANTIC is a large 40 pin chip usually next to GTIA.

6502C CO14806. The CPU is the CPU. I don't think much of anything would be running if this chip were to fail. It would be a candidate for swapping if nothing happens when you turn on the power, however that are lots of other chips that might hang the system in a similar fashion. The 6502 is a large 40 pin chip usually located next to ANTIC.

PIA CO14795. The Peripheral Interface Adapter controls the joystick ports. On the 130XE it also controls the bank switching of the extra 64K of memory. If your joysticks are not working, then maybe you had better replace your joysticks. This would be a last choice replacement for joystick problems. If you are having problems with your 130XE RAMDISK then this chip might be a prime suspect. The PIA is a large 40 pin chip usually located next to the 6502.

POKEY CO12294. This chip scans the keyboard, reads the paddle controllers, operates the Serial I/O bus, and produces the sounds that you hear coming from the monitor speaker. It is a prime candidate for swapping when the keyboard is not functioning or when the sounds are on the fritz. POKEY is a large 40 pin chip usually located close to the keyboard connector.

COLOR AMPLIFIERS 2N3904 Q2 thru Q5. These amplifiers are mounted in single transistor packages near the monitor and TV ports. They are used to amplify the color and luminance signals. When they fail, it is likely that the system will still work but with an impaired display. The author has experienced 1 failure of Q2. Commercially available.

DELAY LINE CO60472. This chip is part of the DRAM support circuitry. When it fails nothing works. The author has experienced 2 failures of this chip. The delay line is mounted in a 14 pin package that is distinguished by 6 missing pins. It is usually mounted near the center of the board. You may be able to buy this commercially as a PCA-EP8212.

RAM ADDR MULTIPLEXER SN74LS158. There are two of these chips that are used to decode the DRAM memory address. When one fails it is likely that nothing will work. The author has experienced 1 failure of these chips. The multiplexer chips are usually mounted near the 8 chip DRAM bank. This chip is a common one

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that is commercially available.

DRAM HM4864-2. The 800XL uses eight commercially available 1 by 64K DRAM chips. They are located in a row usually on the left side of the board. The 600XL uses two 4 by 16K chips 4416-15.

MEMORY TEST. The 800XL comes with a built-in self-test for the DRAM and ROM memory chips. You can enter the self-test by disconnecting the SIO cable and then holding down the option key while you turn on the computer. However I doubt if this self-test would work at all in a situation where we have a memory failure. The self-test might be useful for intermittent failures since it keeps on looping once it is started.

WIRING DIAGRAMS. Sams has published wiring diagrams for the 800XL under the label CC11. Sams phone number is (was?) 1-800-428-SAMS. Wiring diagrams for the old 800 and 400 models were published by Atari in the Personal Computer Hardware Manual, CO16555. Wiring diagrams for the 1050 disk drives were published in the Atari 1050 Disk Drive Field Service Manual, FD100330. The Atari manuals may be available from Best Electronics.

THE END. That is about all that I have for now. I hope that you will find this document to be useful and that it helps to prolong the life of a very wonderful computer line. Do not forget about the "HOT TEST". It is probably the most valuable tip in this entire document. The HOT TEST works when all else seems to fail. If anyone has any comments or feedback about this document, please feel free to Email me. CompuServe 74065,1622.

(Editor's note: This article was contributed by Jeff Potter. Thanks and
them coming, Jeff. This article is very authoritative and the author is extremely knowledgable, but the Staff of The Newsletter or the officers of The Mid-Florida Atari Computer Club makes no recommendation about the modifications and/ or tests and will not be liable for any damage to any equipment.)

QUESTION CORNER

(Editor's note: This is a new feature of the MFACC Newsletter and will appear on an ongoing basis. ENJOY!!!)

Floppy Drive Replacement

by Chris and Wayne Ketner

Question:

My floppy drive is not working right. When I put in a disk, it will give me the directory of that disk. But if I put in another disk it gives me the directory of the previous disk.

Answer:

This is a common problem. Sometimes it is simple to fix. If you are lucky, all that needs to be done is to run a disk cleaner to clean the heads. More often however, the problem is not so simple. If you run a disk cleaner and the problem does not clear up, then most likely the problem is in the circuitry. There is a disk change line that checks the disk when it is put in to see if it is a new disk, or if the same one has been put back in. If this line is damaged, the disk drive no longer knows how to determine if the disk has been changed. The best way to fix this is to replace the drive. If you decide to do this you will need to decide if you are going to do it yourself or if you would rather take it to a repair shop. Taking it to the repair shop is of course the easiest option, but it is also the most expensive.

Changing the disk drive yourself is not a difficult task, but does take time and care. The most important thing to remember is to always make sure that the power is off. Removing the power cord is the easiest way of making sure of this, but you will lose your ground potential. One of the biggest worries in dealing with the internals of computers is the problem of static electricity. Your body acts as a conductor of this static electricity. If you have ever walked across a carpeted floor n the winter time and then touched a "ONE OF THE MOST IMPORTANT TOOLS YOU WILL

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person or something metal NEED IF YOU DECIDE TO DO YOUR OWN REPAIR and you received a light IS TO HAVE AN ANTISTATIC WRIST STRAP." shock then you have experienced static electricity. This same shock that feels fairly weak to you can destroy your computers internals. One of the most important tools you will need if you decide to do your own repair is to have an antistatic wrist strap. You can usually get cheap throwaway ones at most computer stores where you get your replacement drive.

If your computer is the desktop type, the first thing you need to do is to move the monitor off of the top of the computer. If you have the tower type of system, then pull it out where you can work on it. Look for the screws holding on the cover. These are usually found either on the back of the computer or on the sides. Remove these screws. Remove the cover. Place the wrist strap of your antistatic wrist strap on your wrist. Then place the other end in contact with the metal of the computer frame. Do not place this end in contact with any of the electronics. Next, locate the drive that you are replacing. Remove the cables on the rear of the drive. One of these is the power cable. It has four wires going into a white plastic connector. The other cable is usually a wide ribbon cable. This is the data carrier that goes to the disk drive controller. Both cables should be carefully pulled straight back from their connectors on the drive. Next remove the screws on the sides of the drive. Slide the drive out of the case and place to the side.

<< Editor's Note: If you connect your antistatic wrist grounding >>
<< strap onto the metal frame of the computer, you will lose most >>
<< of its grounding potential if you disconnect the power cord >>
<< from the back of the computer. When working on Atari systems, >>
<< or other computers with a plastic case, the grounding strap >>
<< should be plugged directly into the ground connection of an >>
<< electric outlet - AFTER you have determined that the outlet >>
<< is properly wired and contains no shorts!>>

Then will need to prepare the new drive. If there are any rail guides or special mounts on the old drive, remove them and place them on the new drive. (If your new drive is of a different size than the old one, you may need to obtain mounting hardware for the new drive that will fit your cabinet.) Make sure when handling the new drive to not touch the heads or the circuit board. Before sliding the new drive into place, look at the connector where the ribbon cable goes. Look for pin number 1. Remember this orientation when placing the drive in the case so that you know which way to place the cable. When you have the new drive ready, slide it into place and replace the screws. Then connect the ribbon cable. The side of the ribbon cable that has the red stripe should be placed on the side that pin 1 is on. Plug the ribbon cable in and then plug in the power cable.

If you can do so safely at this point it is a good idea to test the computer before closing it back up. Remove your wrist strap and turn the computer on. Test the new drive to make sure it works. If it does not work, then most likely the ribbon cable is on backwards. Turn off the power and remove the cable, turn it over and plug it back in. Turn the computer back on and test again. After making sure that everything works, turn the computer back off. Replace the cover and screws and put everything back where it belongs.